Remarks

The following is a response to the Office Action dated March 26, 2003.

Claims 1 and 4 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The undersigned expresses his appreciation to the examiner for suggesting how best to eliminate the indefiniteness rejection per her telephone call on March 21, 2003. Per suggestion by the examiner, claim 1 has been amended to include the term "detector" at the appropriate place. Accordingly, it is believe that claims 1 and 4 should now be formally allowed.

Claims 7-10 were rejected under 35 U.S.C. 102(e) as being anticipated by Moberg et al. U.S. patent 6,485,465.

When an occlusion is created, the force applied by a syringe pump to the medication will cause some elastic expansion of various components of the system, such as the tubing and the syringe plunger seal. This continues until the upper force limit is exceeded. If the plunger is simply stopped and the occlusion is removed, the expanded components will be free to relax, thereby causing expulsion of an unwanted bolus of medication to the patient. The present invention, by contrast, reverses the drive on the plunger when excess force is detected to allow the stored energy to relax before the occlusion is removed. In this way, there is less risk that excessive doses of medication will be administered.

The amendment above distinguishes the method claims from the disclosure of Moberg (US 6485465). Moberg describes a syringe pump with a force sensor that detects obstruction to movement of the plunger. Indeed, Moberg focuses on the sensor, the placement of the sensor and the mounting of the sensor in the pump (Column 9, lime 12 to column 11, line 15), so as to detect an occlusion. Moberg does describe (column 15, lines 8 to 25) various possible actions that can be taken in response to detection of an

obstruction, such as, stopping the pump, providing a warning, continuing infusion with a warning etc. None of these various alternatives, however, includes reversing the drive on the plunger in the manner of the present invention. The pump described by Moberg is, therefore, different from that of the present invention and does not have the advantage of the present invention of reducing the risk that an excessive dose of medication be administered when an obstruction is removed.

In view of the foregoing, the examiner is respectfully requested to reconsider the application and allow all of the pending claims.

Respectfully submitted,

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